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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/880,583	06/13/2001	Franklin T. Emery	01P10732US	6763

7590

02/11/2003

Siemens Corporation  
Intellectual Property Department  
186 Wood Avenue South  
Iselin, NJ 08830

EXAMINER

CUEVAS, PEDRO J

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 02/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/880,583

Applicant(s)

EMERY, FRANKLIN T.

Examiner

Pedro J. Cuevas

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,574,325 A to von Musil et al. in view of DuPont electronic publications (<http://www.dupont.com/nomex/main>).

Von Musil et al. clearly teaches the construction of an electrical isolation layer system comprising:

a first conductive material comprising a plurality of copper strands;

a second conductive material comprising a roebel filler; and

a felt having a dielectric strength of at least 300 volts per millimeter interposed at least partially between the copper strands and the roebel filler wherein:

the felt has a dielectric strength of at least 500 volts per millimeter, and is arranged in any of the following configurations:

above the upper surface of the copper strands and below the lower surface of the roebel filler;

below the upper surface of the copper strands and above the lower surface of the roebel filler;

to sheath at least one copper strand; or

to sheath all the copper strands,

the plurality of copper strands include at least 30 roebelled copper strands and are sheathed by a porous insulating material,

the roebel filler includes a mica material,

the isolation layer has an adhesive coated on at least one side of the isolation layer; and

a strand assembly for use within a stator of a dynamoelectric machine of a power generation plant, comprising:

a plurality of roebelled conductive strands that extend along a generator length;

an insulator sheathing each of the strands;

a conductive filler at least partially surrounding the insulated strands; and

an electrical isolation layer disposed at least partially between the insulated strands and the conductive filler material wherein the isolation layer:

has a dielectric strength of at least 300 volts per millimeter,

comprises a nomex spun laced felt,

has an adhesive covering at least one side of the isolation layer,

and

can withstand an operating temperature of at least 130° C.

However, it fails to disclose nomex spun laced felt.

DuPont teach the construction of NOMEX® brand fibers for the purpose of providing high levels of electrical, chemical, and mechanical integrity when converted into its various sheet forms –primarily papers and pressboards- when used in transformers, motors, generators, and other electrical equipment.

It would have been obvious to one skilled in the art at the time the invention was made to use the NOMEX® brand fibers disclosed by DuPont on the electrical isolation layer system disclosed by von Musil et al. for the purpose of providing high levels of electrical, chemical, and mechanical integrity when converted into its various sheet forms –primarily papers and pressboards- when used in transformers, motors, generators, and other electrical equipment.

4. The use of the trademark NOMEX® has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner, which might adversely affect their validity as trademarks.

5. With regards to claims 17-20, Smith et al. also disclose the steps and procedures (method of forming) to prepare the conductive felt for use in high voltage generator coils comprising:

sheathing a plurality of conductive strands with an insulating material;

roebelling the insulated strands;

arranging an electrical isolation layer at least partially over the insulated strands;

and

arranging a conductive filler at least partially over the insulated strands whereby the isolation layer electrically isolates the strands from the filler wherein the isolation layer:

is arranged above the upper surface of the insulated strands and below the lower surface of the insulated strands,

sheathes the insulated strands, and

the insulator used to insulate the strands has a porous open weave, as shown in Figure 3, clearly stated in the abstract, and explained in the presented examples 1-4 covered in columns 3-6.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pedro J. Cuevas whose telephone number is (703) 308-4904. The examiner can normally be reached on M-F from 8:30 - 6:00.

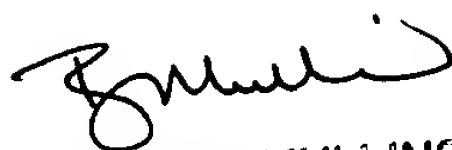
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor R. Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-1341 for regular communications and (703) 305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Application/Control Number: 09/880,583  
Art Unit: 2834

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Pedro J. Cuevas  
February 3, 2003

  
BURTON S. MULLINS  
PRIMARY EXAMINER